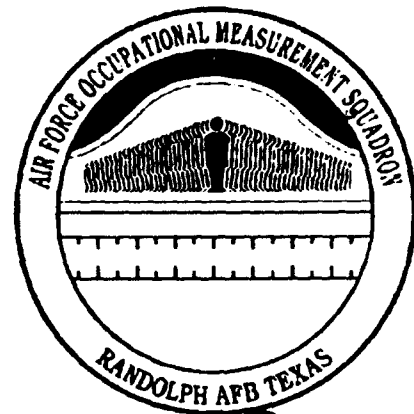




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UNITED STATES
AIR FORCE

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OCCUPATIONAL SURVEY REPORT

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94-16612

AIRBORNE WARNING COMMAND AND CONTROL SYSTEMS/
AIR WEAPONS DIRECTOR

AFSCs 1A4X1 AND 13B3
(FORMERLY AFSCs 117X0 AND 1745)

AFPT 90-117-984

APRIL 1994

OCCUPATIONAL ANALYSIS PROGRAM
AIR FORCE OCCUPATIONAL MEASUREMENT SQUADRON
AIR EDUCATION and TRAINING COMMAND
1550 5th STREET EAST
RANDOLPH AFB, TEXAS 78150-4449

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STANDARDS BRANCH (MAGTEC)	1			
USAFOMS/OMDQ	1			
USAFOMS/OMYXL	10		5	10
7 ACCS/CC (ATTN: MSGT JOHN H. CAREY), 817 H STREET, SUITE 101, KEESLER AFB MS 39534-2451	1			
81 TRG/CCVT, 825 HERCULES STREET, SUITE 101, KEESLER AFB MS 39534-2037	1			1
335 TTS/TTOT, 600 HANGAR RD, SUITE 122, KEESLER AFB MS 39534-2804	5	1	2	2
552 OG/CC (ATTN: MSGT CRAIG B. ADAMS) 7513 SENTRY BLVD, SUITE 220, TINKER AFB OK 73145-9012	1			
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PREFACE

This report presents the results of an occupational survey of the Airborne Warning Command and Control Systems career ladder, AFSC 1A4X1, formerly AFSC 117X0, and officers in the Air Weapons Director career ladder, AFSC 13B3, formerly AFSC 1745. Authority for conducting occupational surveys is found in AFI 36-2623. Computer products used in this report are available for use by operations and training officials.

Chief Master Sergeant Jeffrey L. Milligan, Inventory Developer, developed the survey instrument. Second Lieutenant Joel A. Jones analyzed the data and wrote the final report. Mr Wayne Fruge provided computer programming support, and Ms Raquel A. Soliz provided administrative support. This report has been reviewed and approved for release by Major Randall C. Agee, Chief, Airman Analysis Section, Occupational Analysis Flight, Air Force Occupational Measurement Squadron (AFOMS).

Copies of this report are distributed to Air Staff sections, major commands, and other interested training and management personnel. Additional copies may be requested from the Air Force Occupational Measurement Squadron, Attention: Chief, Occupational Analysis Flight (OMY), 1550 5th Street East, Randolph AFB, Texas 78150-4449.

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SUMMARY OF RESULTS

1. Survey Coverage: Survey results are based on responses from 254 AFSC 1A4X1 (formerly AFSC 117X0) and from 72 AFSC 13B3 (formerly AFSC 1745) respondents. This represents approximately 50 percent of the total assigned enlisted population and 29 percent of officers receiving survey booklets.
2. Specialty Jobs: Analysis of survey data revealed two distinct clusters of jobs. The first, Air Surveillance, is the larger of the two. Three jobs were identified in this cluster: Entry-Level Air Surveillance, Air Surveillance, and Advanced Air Surveillance. The second cluster, Command and Control, also contained three distinct jobs: Airborne Aircraft Control, Senior Aircraft Control, and Air Weapons Director (currently an officer position being converted to the enlisted force by October 1994).
3. Career Ladder Progression: Both 3- and 5-skill level personnel perform mostly technical tasks. Seven-skill level personnel perform a mixture of technical and supervisory tasks. Nine-skill level and Chief Enlisted Managers (CEMs) perform fewer technical tasks and larger numbers of supervisory and administrative tasks.
4. AFM 36-2108 Specialty Descriptions: AFMAN 36-2108 *Specialty Descriptions* for the Airborne Warning Command and Control Systems career ladder provide generally accurate descriptions of the jobs and tasks performed at each skill level. However, the weapons director functions will have to be expanded as the officer billets are converted to Enlisted Weapons Directors (EWDs).
5. Training: Training documents for AFSC 1A4X1 had not been approved at the time of this report. The Specialty Training Standard (STS) and Plans of Instruction (POIs) for the new E3ABR1A431 Airborne Warning Command and Control course are still in tentative forms. However, task factor data collected from subject-matter experts can be found later in this report. Task factor data can be used to justify decisions made in reference to career ladder documents or training programs.
6. Job Satisfaction: Job satisfaction indicators for AFSC 1A4X1 respondents are more negative than those reported by members of three related aircrew AFSCs surveyed in 1992. Indicators are slightly higher for first-enlistment personnel in the present study and mixed for other survey members compared to those reported in 1987. AFSC 1A4X1 personnel performing most jobs find their work interesting; however, many question whether their talents and training are being used to their full potential. Most personnel, with the exception of senior members at retirement age, plan to reenlist.

7. Implications: There are essentially two sets of jobs in AFSC 1A4X1: Air Surveillance and Command and Control. With the addition of Air Weapons Director functions, this career ladder will be responsible for most of the tracking, communication, and weapons control of air assets in a threat area or theater of operation. There are very few changes in this study from the last time it was surveyed. The most notable change is the addition of the Air Weapons Director functions to the list of tasks to be performed by career ladder personnel. Training issues for the new EWDs will be increasingly crucial following the conversion of Weapons Director functions.

**OCCUPATIONAL SURVEY REPORT (OSR)
AIRBORNE WARNING COMMAND
AND CONTROL SYSTEMS OPERATOR/
AIR WEAPONS DIRECTOR
(AFSCs 1A4X1/13B3)**

INTRODUCTION

This is a report of an occupational survey of AFSC 1A4X1 (formerly AFSC 117X0), Airborne Warning Command and Control Systems career ladder and AFSC 13B3, (formerly AFSC 1745), Air Weapons Director (officers). The last occupational survey report (OSR) for this career ladder was published in May 1987. This survey is being completed as part of the updating of OSR data on a 5- year cyclic basis.

Background

AFMAN 36-2108 *Specialty Descriptions* for the Airborne Warning Command and Control Systems (AWCCS) career ladder state AFSC 1A4X1 3- and 5-skill level personnel operate airborne warning and control systems radar sensors and electronic countermeasures equipment; interpret computer-generated displays and alarms; gather, record, and distribute mission information; maintain communication nets with ground, air, and maritime units; and perform common aircrew command and control functions under training and operational conditions. Seven-skill level members perform many of the same technical tasks with added mission planning, supervisory, and administrative functions. Nine-skill level and CEM-code members, while still performing a few technical command and control operational mission duties, are responsible for managing airborne command and control operational activities.

Since Fall 1992, Weapons Director functions have been converted from officer billets to those of 1A4X1 personnel. Over the next year, approximately 400 more billets will be converted from officer to enlisted. The new enlisted controllers will be called Enlisted Weapons Directors (EWDs). They will assume the duties of the AFSC 13B3 equivalents with the exception of staff and command duties necessary for the career advancement of officers in that AFSC. In order to capture task and job data on personnel in these Air Weapons Director positions, job inventories were mailed to AFSC 13B3 officers in the billets scheduled to be converted. Data on these incumbents are included later in this report.

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Entry into AFSC 1A4X1 requires completion of courses J3AQR11010-000: Enlisted Aircrew Undergraduate and E-3AQR1A431-001: Apprentice Aerospace Control and Warning (AC&W) Systems Operator, a strength factor of "G" (weight lift of 40 lbs), and a "General 53" ASVAB score. There are no strength or stamina problems noted.

SURVEY METHODOLOGY

Inventory Development

The data collection instrument for this occupational survey was USAF Job Inventory (JI) Air Force Personnel Test (AFPT) 90-117-984, dated April 1992. A preliminary task list was prepared by the Inventory Developer after carefully reviewing previous task lists, current career ladder publications, and training documents. This tentative task list was validated through personal interviews with 23 subject-matter experts (SMEs) at the two operational units and the technical training school listed below.

BASE

Keesler AFB MS

Keesler AFB MS

Tinker AFB OK

ORGANIZATION VISITED

Technical Training School

7 ACCS

552 ACW (AWACS)

The final JI contains 445 tasks grouped under 11 duty headings and standard background questions asking respondents to indicate their paygrade, duty title, time in service, time in present job, time in career field, and job satisfaction. Additional background questions were included, asking respondents to indicate the amount of alert duty and TDY to determine effects, if any, of TDY and alert duty on job satisfaction.

Survey Administration

A computer-generated mailing list, obtained from the Air Force Military Personnel Center, was used to select survey participants. From December 1992 to July 1993, Military Personnel Flights at operational bases worldwide administered the JI to AWCCS personnel.

All individuals who filled out an inventory first completed the identification and biographical information section. Next, they answered questions in the background portion of the inventory. They were instructed to go through the booklet and check each task they perform in

their current job. They were asked to go back and rate the time spent on each task performed using a 9-point scale. Time-spent ratings ranged from 1 (indicating a very small amount of time spent) to 9 (indicating a very large amount of time spent).

The computer calculated the relative percent time each respondent spent performing tasks by first totaling the ratings on all tasks marked, dividing the rating for each task by this total, and multiplying by 100. Percent time spent ratings from all respondents were combined and used with percent members performing values to describe various groups in the career ladder.

Survey Sample

The final sample includes responses from 326 personnel: 254 AFSC 1A4X1 and 72 AFSC 13B3 officers. These 254 respondents represent roughly 52 percent of the eligible population. The low return rate is due, primarily, to the intense TDY burden of this career ladder. However, comparisons by MAJCOM and paygrade distributions (displayed in Tables 1 and 2) indicate this sample provides an accurate representation of the AFSC 1A4X1 population.

Task Factor Administration

Job descriptions alone do not provide sufficient data for making decisions about career ladder documents or training programs. Task factor data were collected by asking selected E-6 and E-7 NCOs to complete either a training emphasis (TE) or task difficulty (TD) booklet. These booklets are processed separately from the JIs, and the TE and TD data are considered when analyzing other issues in the study.

Training Emphasis (TE). TE is defined as the amount of structured training first-enlistment personnel need to perform tasks successfully. Structured training is training provided by resident technical schools, field training detachments (FTD), mobile training teams (MTT), formal OJT, or any other organized training method. Twenty-eight experienced AFSC 1A4X1 NCOs rated the tasks in the inventory using a 10-point scale ranging from 0 (no training required) to 9 (extremely high TE). Interrater agreement for these 28 raters was acceptable. The average TE rating is 2.29, with a standard deviation of 1.94. Any task with a TE rating of 4.23 or greater is considered to have a high TE.

TE booklets were also mailed to officers in the AFSC 13B3 career field. Sixteen booklets were used in the final TE sample of officers. Interrater agreement was adequate. The average TE rating is 2.14, with a standard deviation of 1.51. Therefore, a high "officer TE" is 3.65.

Task Difficulty (TD). TD is defined as an estimate of the length of time the average airman takes to learn how to perform a task. Eleven experienced NCOs rated the difficulty of the tasks on a 9-point scale ranging from 1 (easy to learn) to 9 (very difficult to learn). Interrater agreement was

TABLE 1
MAJCOM DISTRIBUTION OF
AFSC 1A4X1

<u>COMMAND</u>	<u>PERCENT OF ASSIGNED</u>	<u>PERCENT OF SAMPLE</u>
ACC	82	76
PACAF	6	7
AETC	1	*
EUR	10	16
OTHER	*	*

Total AFSC 1A4X1 Personnel Assigned as of October 1992: 503

Total AFSC 1A4X1 Personnel Eligible for Survey: 485

Total AFSC 1A4X1 Personnel in Sample: 254

Percent of Eligible in Sample: 52%

Percent of Assigned in Sample: 50%

*Indicates less than 1 percent

TABLE 2
PAYGRADE DISTRIBUTION OF
AFSC 1A4X1

PAYGRADE	PERCENT OF ASSIGNED* (N=503)	PERCENT OF SAMPLE (N=254)
AIRMAN	27	24
E-4	23	26
E-5	21	26
E-6	14	9
E-7	11	11
E-8	3	2
E-9	1	2

***As of October 1992**

again acceptable. TD ratings are normally adjusted so tasks of average difficulty have a value of 5.0, with a standard deviation of 1.0. Thus, any task with a TD rating of 6.00 or above is considered difficult to learn.

TE ratings, when used with percent members performing values and TD ratings, can provide insight into first-enlistment training requirements, help validate the need for structured training, and be used to evaluate the Career Field Education and Training Plan (CFETP), Specialty Training Standards (STS) and Plans of Instruction (POI) for a career ladder.

CAREER LADDER STRUCTURE

The first step in the analysis process is to identify the career ladder structure in terms of jobs performed by the respondents. Comprehensive Occupational Data Analysis Programs (CODAP) assist by creating a job description for each respondent based on the tasks performed and relative amount of time spent on the tasks. The CODAP automated clustering program then compares all individual job descriptions, locates those descriptions with the most similar tasks and time spent ratings, and combines them to form a composite job description. In successive stages, new members are added to the initial groups, or new groups are formed based on the similarity of tasks performed and time ratings. This process continues until all respondents possible are included in a group.

The basic group used in the hierarchical clustering process is the Job. When two or more jobs have a substantial degree of similarity in tasks performed and time spent on tasks, they are grouped together and identified as a Cluster. In some cases, tasks performed by members of a cluster may vary slightly, but are different enough to warrant identifying separate jobs within the cluster. The structure of the AWCCS career ladder is then defined in terms of the work performed, clusters of jobs, and jobs within clusters.

Overview

Descriptions of the clusters and jobs for AFSC 1A4X1 are presented below. Tables 3 and 4 show distribution of duty time and selected background information, respectively, for members of each job cluster and the jobs within each cluster. The Stage (STG) number listed beside each job title is a reference number assigned by CODAP, while the letter "N" refers to the number of respondents performing the job.

Occupational survey data collected from AWCCS and Weapons Director personnel identified two distinct clusters of jobs: the Air Surveillance cluster and the Command and Control cluster. Figure 1 illustrates the division of jobs performed by survey sample members. Brief descriptions of each cluster and job are presented below, while representative tasks performed in each are listed in Appendix A.

TABLE 3

DISTRIBUTION OF DUTY TIME SPENT BY MEMBERS OF CAREER LADDER
(RELATIVE PERCENT OF JOB TIME)

DUTIES	AIR SURVEILLANCE CLUSTER				COMMAND AND CONTROL CLUSTER			
	ENTRY-LEVEL		ADV		ABN		AIR	
	AIR	AIR	AIR	AIR	ARCFT CTRL	SENIOR ARCFT CTRL	WEAPONS DIRECTOR	
	SURV (ST030) (N=41)	SURV (ST060) (N=105)	SURV (ST077) (N=56)	ARCFT CTRL (ST033) (N=26)	ARCFT CTRL (ST052) (N=03)	(OFFICERS) (ST035) (N=58)		
A ORGANIZING AND PLANNING	2	2	4	5	5	2		
B DIRECTING AND IMPLEMENTING	2	2	5	4	6	1		
C INSPECTING AND EVALUATING	1	2	5	3	7	1		
D TRAINING	3	3	6	4	7	3		
E PERFORMING ADMINISTRATIVE TASKS	*	2	5	3	10	1		
F PERFORMING COMMON AIRCREW TASKS	24	20	12	10	10	9		
G PERFORMING GENERAL OPERATING AND SIMULATOR FUNCTIONS	28	32	32	24	25	21		
H PERFORMING SURVEILLANCE FUNCTIONS	25	20	13	3	6	6		
I ELECTRONIC WARFARE FUNCTIONS	6	6	5	2	1	1		
J PERFORMING COMMUNICATION AND COMMAND AND CONTROL FUNCTIONS	8	10	10	28	19	16		
K PERFORMING WEAPONS CONTROL FUNCTIONS	*	1	2	13	4	39		

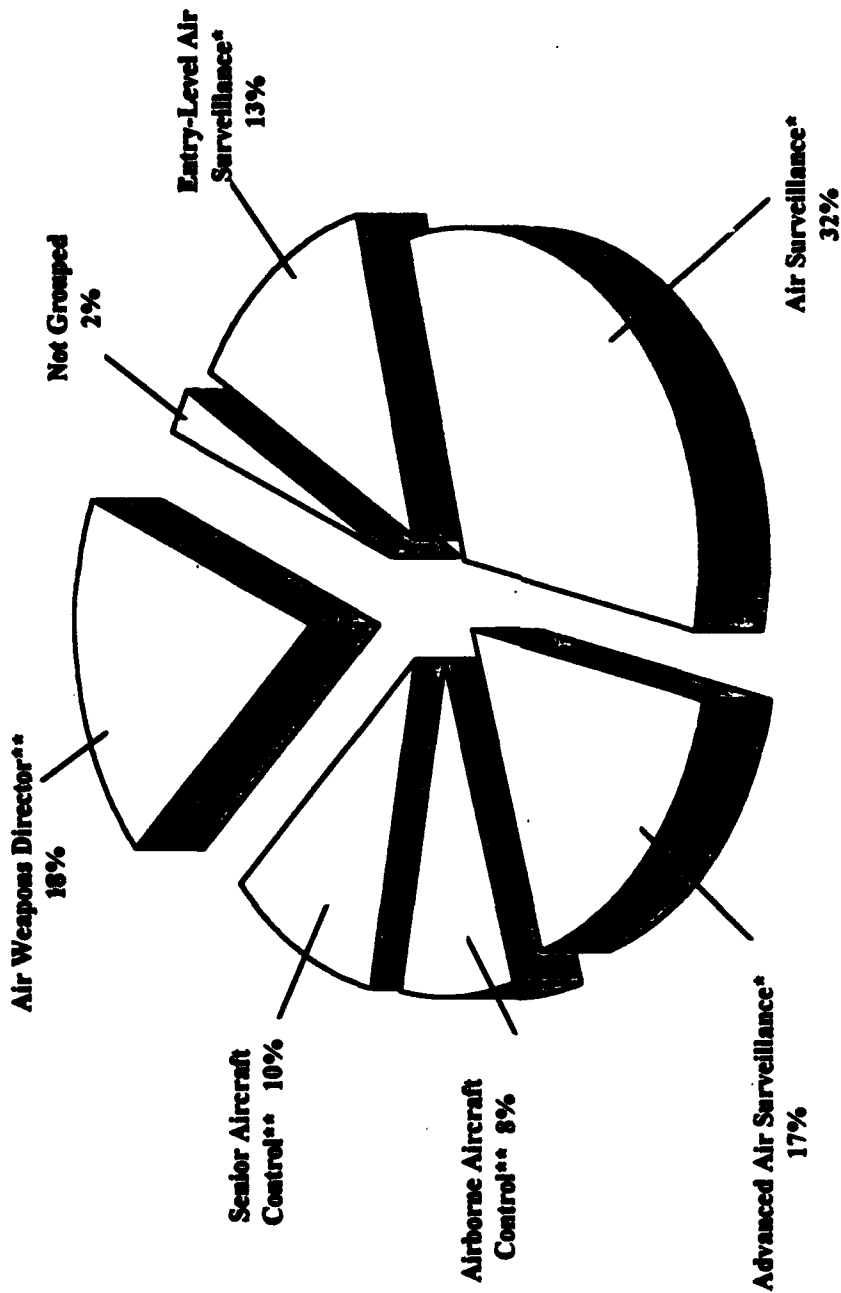
*Denotes less than 1 percent

TABLE 4

SELECTED BACKGROUND DATA FOR SPECIALTY JOBS

	AIR SURVEILLANCE CLUSTER				COMMAND AND CONTROL CLUSTER			
	ENTRY-LEVEL		ADV		ABN		SENIOR	
	AIR SURV (ST030)	AIR SURV (ST060)	AIR SURV (ST077)	AIR SURV (ST077)	ARCFT CTRL (ST033)	ARCFT CTRL (ST052)	ARCFT CTRL (ST052)	WEAPONS DIRECTOR (ST035)
NUMBER IN GROUP	41	105	56	56	26	3	3	58
PERCENT OF SAMPLE	13%	32%	17%	17%	8%	1%	1%	18%
<u>DAFSC DISTRIBUTION (PERCENT):</u>								
1A431 (11730)	63%	39%	5%	5%	0%	0%	0%	0%
1A451 (11750)	36%	59%	68%	68%	38%	33%	33%	0%
1A471 (11760)	0%	2%	21%	21%	23%	67%	67%	0%
1A491 (11790)	0%	0%	2%	2%	4%	0%	0%	0%
1A400 (11700)	0%	0%	0%	0%	0%	0%	0%	0%
<u>PAYGRADE DISTRIBUTION:</u>								
AMN	56%	29%	2%	2%	0%	0%	0%	0%
E-4	27%	41%	20%	20%	4%	0%	0%	0%
E-5	5%	20%	46%	46%	35%	0%	0%	0%
E-6	7%	6%	9%	9%	13%	33%	33%	0%
E-7	5%	4%	14%	14%	13%	67%	67%	0%
E-8	0%	0%	5%	5%	4%	0%	0%	0%
E-9	0%	1%	0%	0%	0%	0%	0%	0%
O-1	0%	0%	0%	0%	0%	0%	0%	22%
O-2	0%	0%	0%	0%	0%	0%	0%	42%
O-3	0%	0%	4%	4%	31%	0%	0%	36%
AVERAGE TAFMS (MOS)	59	78	141	141	176	201	201	54
PERCENT IN FIRST ENLISTMENT	64%	42%	4%	4%	0%	0%	0%	N/A
PERCENT SUPER VISING	18%	27%	62%	62%	62%	66%	66%	18%
AVERAGE NUMBER OF TASKS PERFORMED	57	99	194	194	120	166	166	129

AFSC 1A4X1 CAREER LADDER JOBS



*Air Surveillance Cluster
**Command and Control Cluster

FIGURE 1

I. AIR SURVEILLANCE CLUSTER (STG028, N=211)

- A. Entry-Level Air Surveillance Job (STG030; N=41)**
- B. Air Surveillance Job (STG060; N=105)**
- C. Advanced Air Surveillance Job (STG077; N=56)**

II. COMMAND AND CONTROL CLUSTER (STG017, N=89)

- A. Airborne Aircraft Control Job (STG033; N=26)**
- B. Senior Aircraft Control Job (STG052; N=03)**
- C. Air Weapons Director Job (STG035; N=58)**

The respondents forming these groups account for 89 percent of the survey sample. Based on the tasks and groups of tasks performed, the remaining 11 percent of the survey sample did not group with any of the defined jobs. Examples of job titles reported by personnel not grouped include: CDC Writer, Inspector General Superintendent, Noncommissioned Officer In Charge (NCOIC) Joint Stars Testing Division, and Staff Operation NCO.

I. AIR SURVEILLANCE CLUSTER (STG028, N=211). Personnel in the Air Surveillance cluster are responsible for monitoring and tracking aircraft in a theater of operation or a threat area. They are also responsible for establishing and maintaining communication links with other air and surface agencies, and handing over aircraft to command and control personnel. This is the larger of the two AFSC 1A4X1 clusters. Within the Air Surveillance cluster, three jobs were identified. They are:

A. Entry-Level Air Surveillance Job (N=41). As the title states, this is the entry-level job in AFSC 1A4X1. Personnel in this job are responsible for tracking aircraft, establishing communication links with ground and air agencies, and handing aircraft over to airborne control personnel. This job is comprised of 13 percent of the total sample. Sixty-four percent of personnel in this job are in their first enlistment. Over 75 percent of personnel duty time in this job is spent performing an average of 57 tasks in common aircrew, general simulator, and basic surveillance functions. Typical tasks performed by members in this job include:

- perform voice tell procedures
- perform height accuracy checks
- pick up or turn in coffee or water jugs
- analyze and identify types of ECM using SDCs
- detect and initiate targets
- perform airborne warning and control systems (AWACS) monitor duties

- perform passive tracking activities
- operate galley equipment, such as ovens or coffee makers
- order, pick up, and inspect aircrew flight lunches
- perform identification functions
- participate in general or specialized mission briefings,
such as intelligence briefings

As this is the entry-level job in the career ladder, it is performed primarily by personnel in paygrades E-1 to E-3, with an average Total Active Federal Military Service (TAFMS) of 59 months. Ninety-three percent of job incumbents reported being assigned to an Airborne Warning and Control Squadron.

B. Air Surveillance Job (N=105). This is the largest job in the career ladder. There are 105 personnel in this job, accounting for 32 percent of the total sample. Like Entry-Level Surveillance personnel, members of the Air Surveillance job spend over 70 percent of their time performing common aircrew and general simulator functions. Members are also responsible for the same surveillance tasks associated with tracking aircraft, establishing and monitoring communication links with aircraft and other agencies, and passing aircraft to other surveillance and control agencies. However, personnel in the Air Surveillance job perform more instructional and supervisory tasks. Nearly a quarter are qualified as instructors or scheduling NCOs. They perform an average of 99 tasks and are primarily 5-skill level personnel. Typical tasks include:

- detect and initiate targets
- conduct SDC checkouts
- perform mission planning duties
- perform airborne warning and control systems
(AWACS) monitor duties
- perform identification functions
- order, pick up, and inspect aircrew flight lunches
- perform or practice emergency aircraft egress procedures
- operate galley equipment, such as ovens or coffee makers
- coordinate voice tells with appropriate agencies
- analyze and identify types of ECM using SDCs

More than half of the members with this job are in paygrades E-5 and E-6, with an average TAFMS of 78 months. Over 90 percent are assigned to AWACS Squadrons, and 7 percent are assigned to training squadrons.

C. Advanced Air Surveillance Job (N=56). Personnel in this job, while performing the same kind of surveillance tasks as the members in the Entry-Level and intermediate Air Surveillance jobs, perform approximately 100 more tasks, which include instructing, supervising, and evaluating personnel in the rest of the cluster. In addition to Advanced Air Surveillance Technician, job titles reported by survey respondents in this job include: Flight Examiner, Operations Superintendent, Superintendent of Training Operations, and Flight Superintendent. Typical tasks for members performing this job include:

- perform airborne warning and control systems (AWACS)
- monitor duties
- interpret SDC displays
- perform mission planning duties
- interpret sensor returns
- supervise Airborne Warning Command and Control Systems Specialists (AFSC 1A451)
- participate in continuation training classes
- write EPRs
- conduct briefings
- brief adjacent units on areas of responsibilities

Members of this job are found in paygrades E-4 to E-8 with an average TAFMS of 141 months. They perform an average of 194 tasks, the most in the career ladder. Ninety-five percent serve in AWACS Squadrons, and 21 percent are serving in units dedicated to training.

II. COMMAND AND CONTROL CLUSTER (STG017, N=89). Members of the three jobs in the Command and Control cluster are responsible for picking aircraft up from Air Surveillance personnel, monitoring and controlling those air assets in a theater of operation or threat area, and maintaining communication links with aircraft in the threat area and other surveillance/command and control agencies. The jobs within this cluster are:

A. Airborne Aircraft Control Job (N=26). This is the main job in the Command and Control cluster. Members in this job perform some of the same general operating and simulator functions as Air Surveillance and Advanced Air Surveillance personnel. However, the majority of their duty time is spent in tasks associated with establishing communication with aircraft, controlling those aircraft in the threat area, and a few Weapons Control functions. Since this is the main job in the cluster, personnel also report qualifications in areas such as monitoring, training, scheduling, and instructing subordinates. Typical tasks include:

- pass immediate air request data
- receive immediate air request data
- perform communication console operations
- establish communications
- accept control of aircraft from other control agencies
- coordinate operations with external agencies
- simulate pilots for realistic AG and GA radio communications
- broadcast threat information to tactical aircraft
- perform mission planning duties
- transmit target information to aircraft, such as bearings
ranges, or altitudes

Enlisted personnel in this job are primarily in paygrades E-5 to E-7. There are nine officers in this job as well. Members in this job report an average TAFMS of 176 months. They perform an average of 120 tasks. Currently, all Airborne Aircraft Control personnel are assigned to Airborne Battlefield Command/Control Centers (ABCCC) aboard EC-130 aircraft.

B. Senior Aircraft Control Job (N=3). These senior enlisted members of the Command and Control cluster are responsible for coordination of aircraft and weapons control in threat areas, and are also responsible for evaluating other airborne aircraft control personnel. Personnel in this job make up only 1 percent of the total sample. Two of the incumbents perform Battle Director functions, coordinating communications and transferring air assets between agencies, as well as performing some of the same tasks as other Airborne Aircraft Control personnel. The third respondent reported his job title as Standardization/Evaluation Flight Examiner, performing tasks associated with monitoring efforts of aircraft controllers. Typical tasks for members of the Senior Aircraft Control include:

- coordinate emergency actions with NORAD, E-3
NORAD airborne battlestaffs, senior directors, or
battle commanders
- perform communication checks
- operate KL-43 encryptions devices
- coordinate with external agencies on status of alerts
or warnings, such as DEFCON status or weather alerts
- perform changes of command and control procedures
- complete emergency action (EA) slides for battle staff
sections

- perform procedures in response to threat warnings
- maintain air defense data
- plan training programs
- supervise Airborne Warning Command and Control Systems Technicians (AFSC 1A471)
- design simulated exercises

Senior Aircraft Control personnel are in paygrades E-6 and E-7 with an average TAFMS of 201 months. Members perform an average of 166 tasks between aircraft control and evaluation. Unlike personnel in the Airborne Aircraft Control job, the Senior Aircraft Controllers are assigned to AWACS squadrons.

C. Air Weapons Director Job (N=58). Officers in the Air Weapons Director job make up 18 percent of the overall survey sample. They are responsible for monitoring, directing, and communicating with air assets handed over from other surveillance/control agencies. They are responsible for coordinating aircraft movement and targeting a threat area in response to directions from senior battlestaff personnel. They spend over 50 percent of their time performing communication, command, control, and weapons control functions. Personnel in the Air Weapons Director job perform an average of 129 tasks. Typical tasks include:

- coordinate handovers with other agencies
- deconflict aircraft with respect to routes, altitudes, or headings
- accept control of aircraft from other control agencies
- commit fighter aircraft to targets
- position aircraft for intercepts
- assign or commit weapons
- conduct radio checks with ground or airborne working agencies
- broadcast threat information to tactical aircraft
- handoff aircraft to other controlling agencies
- conduct air refueling operations

Weapons Director personnel are currently in grades 0-1 to 0-3 with an average TAFMS of 54 months. Ninety-seven percent of the members are assigned to AWACS squadrons. The other 3 percent are assigned to the Technical Training Center.

Comparison to Previous Survey

As shown in Table 5, the job structure in both clusters is very similar to that of the previous survey. In the Air Surveillance cluster, the only difference is the addition of the Entry-Level job. In the Command and Control cluster, the NORAD Mission Technician job does not

TABLE 5

JOB SPECIALTY COMPARISONS BETWEEN CURRENT AND 1987 SURVEYS

CURRENT (N=326)	1987 (N=234)
AIR SURVEILLANCE CLUSTER	AIR SURVEILLANCE PERSONNEL
-ENTRY- LEVEL AIR SURVEILLANCE JOB	
- AIR SURVEILLANCE JOB	- AIR SURVEILLANCE TECHNICIANS
- ADVANCED AIR SURVEILLANCE JOB	- ADVANCED AIR SURVEILLANCE TECHNICIANS
COMMAND AND CONTROL CLUSTER	COMMAND AND CONTROL PERSONNEL
-AIRBORNE AIRCRAFT CONTROL JOB	-SENIOR BATTLESTAFF TECHNICIANS
- SENIOR AIRCRAFT CONTROL JOB	-AIRBORNE AIRCRAFT CONTROLLERS
	-NORAD MISSION TECHNICIANS
-AIR WEAPONS DIRECTOR JOB (OFFICERS)	

exist in the current survey report, but the Weapons Director job has been identified. As the transition plan is implemented, the Weapons Director positions will grow into the new EWD job. As such, it will represent a greater proportion of AFSC 1A4X1.

CAREER LADDER PROGRESSION

Analysis of DAFSC groups, together with the analysis of the career ladder structure, is an important part of each occupational survey. The DAFSC analysis identifies differences in tasks performed by members of the various skill-level groups. These, in turn, may be used to determine how well career ladder documents, such as AFMAN 36-2108 *Specialty Descriptions*, reflect work actually being performed by members of the skill levels. The distribution of skill-level personnel performing the career ladder jobs is shown in Table 6, while the relative time members of the skill-level groups spend on each duty is listed in Table 7.

Overall, AFSC 1A4X1 personnel progress typically through the career ladder. Three- and 5-skill level personnel perform the technical aspects of the specialty. Seven-skill level members perform a mixture of both technical and supervisory tasks. Nine-skill levels and CEMs, while performing some technical tasks, are primarily tasked with training and evaluation.

Skill-Level Descriptions

DAFSC 1A431. There are 77 DAFSC 1A431 personnel in the survey sample. All 3-skill level personnel are in the Air Surveillance cluster. There are 26 in the Entry-Level Air Surveillance job, 41 in the Air Surveillance Job, and 3 in the Advanced Air Surveillance job. There were seven members of this job that did not group under the jobs identified in this survey. Three-level personnel spend most of their duty time performing common aircrew tasks, general operating and simulator functions, and surveillance functions (See Table 7). Representative tasks performed by 3-skill level personnel are shown in Table 8.

DAFSC 1A451. There are 141 DAFSC 1A451 personnel in the survey sample. More than 50 percent are in the Air Surveillance cluster. There are 16 first-enlistment personnel in the Entry-Level job and 62 in the Air Surveillance job. Based on the tasks performed and time spent on those tasks, 54 members did not group into job groups identified in the survey. Much like 3-skill level personnel, 5-skill levels spend the majority of their duty time in the technical aspects of the career field. Table 10 shows tasks differentiating 3-/5- and 7-skill level members. It can be seen that there is an increased responsibility for mission-specific tasks, administration, supervision, and instruction. Relative time spent on duties and representative 5-skill level tasks is shown in Tables 7 and 9, respectively.

TABLE 6

DISTRIBUTION OF SKILL-LEVEL PERSONNEL ACROSS CAREER LADDER JOBS
(PERCENT RESPONDING)

JOBS	DAFSC 1A431 (N=77)	DAFSC 1A451 (N=141)	DAFSC 1A471 (N=30)	DAFSC 1A491 (N=03)	DAFSC 1A400 (N=03)
I. AIR SURVEILLANCE JOB CLUSTER:					
A. ENTRY-LEVEL AIR SURVEILLANCE JOB	34	11	0	0	0
B. AIR SURVEILLANCE JOB	53	44	7	0	0
C. ADVANCED AIR SURVEILLANCE JOB	4	*	40	33	0
II. COMMAND AND CONTROL JOB CLUSTER					
A. AIRBORNE AIRCRAFT CONTROL JOB	0	7	20	33	0
B. SENIOR AIRCRAFT CONTROL JOB	0	*	7	0	0
C. AIR WEAPONS DIRECTOR JOB	0	0	0	0	0
III. NOT GROUPED	9	38	26	33	100

* Denotes less than 1 percent

TABLE 7

DISTRIBUTION OF DUTY TIME SPENT BY DAFSC GROUPS
(RELATIVE PERCENT OF JOB TIME)

DUTY	DAFSC 1A431 (N=77)	DAFSC 1A451 (N=141)	DAFSC 1A471 (N=30)	DAFSC 1A491/1A400 (N=6)	DAFSC 13B3 (OFF) (N=72)
A ORGANIZING AND PLANNING	2	3	6	16	2
B DIRECTING AND IMPLEMENTING	2	3	6	10	2
C INSPECTING AND EVALUATING	1	3	8	16	2
D TRAINING	2	5	8	5	4
E PERFORMING ADMINISTRATIVE TASKS	2	3	10	11	2
F PERFORMING COMMON AIRCREW TASKS	21	17	10	6	10
G PERFORMING GENERAL OPERATING AND SIMULATOR FUNCTIONS	29	30	26	17	21
H PERFORMING SURVEILLANCE FUNCTIONS	22	17	8	5	5
I PERFORMING ELECTRONIC COUNTER MEASURES (ECM), ELECTRONIC COUNTER COUNTER MEASURES (ECCM), AND ELECTRONIC WARFARE	8	5	3	*	1
J PERFORMING COMMUNICATION AND COMMAND AND CONTROL (CC) FUNCTIONS	9	12	13	9	17
K PERFORMING WEAPONS CONTROL FUNCTIONS	2	2	3	4	33

*Less than 1 percent

TABLE 8

**REPRESENTATIVE TASKS PERFORMED BY
3-SKILL LEVEL PERSONNEL**

TASKS	PERCENT MEMBERS PERFORMING (N=77)
H314 Perform voice tell procedures	95
G268 Perform height accuracy checks	94
F197 Pick up or turn in coffee or water jugs	92
H313 Perform passive tracking activities	91
G262 Perform airborne warning and control systems (AWACS) monitor duties	90
H293 Coordinate voice tells with appropriate agencies	90
I315 Analyze and identify types of ECM using SDCs	90
H294 Detect and initiate targets	87
G222 Conduct SDC checkouts	87
H290 Complete correlation checks with air tracks common to E-3 and other agencies	87
I319 Determine positions, types, and intensities of ECM	87
F187 Order, pickup, and inspect aircrew flight lunches	86
F194 Perform personal equipment inspections	84
F189 Participate in general or specialized mission briefings, such as intelligence briefings	84
H303 Interrogate tracks for IFF/SIF responses	84
F172 Don or doff aircrew protective clothing	84
G270 Perform mission planning duties	83
F193 Perform or practice emergency aircraft egress procedures	83
F200 Review and sign off flight crew information files (FCIFs) or mission operations read files (MORFs)	82
H302 Interpret IFF/SIF computer-generated returns for identifying air or surface tracks	82
I327 Report positions, types, and intensities of ECM	82
H305 Maintain continuity of tracks	81
H300 Initiate tracks on reported positions	81
H299 Identify emergency symbols or codes	81
G269 Perform identification functions	79
F185 Operate galley equipment, such as ovens or coffeemakers	79
H295 Determine track categories and identification	78
G246 Interpret SDC displays	78
H310 Monitor passive tracking activities	78
I316 Analyze and work through communication ECM	77
H292 Coordinate identification of air or surface tracks with air or ground elements	75
H308 Maintain track logs	74
J379 Report unknown aircraft	73
F190 Participate in life support training seminars	73
F198 Preflight aircrew life support equipment	71

TABLE 9
REPRESENTATIVE TASKS PERFORMED BY
5-SKILL LEVEL PERSONNEL

TASKS	PERCENT MEMBERS PERFORMING (N=141)
G270 Perform and initiate targets	92
F185 Operate galley equipment, such as ovens or coffee makers	90
H299 Identify emergency symbols or codes	89
H294 Detect and initiate targets	88
G246 Interpret SDC displays	87
F200 Review and sign off flight crew information files (FCIFs) or mission operations read files (MORFs)	87
G222 Conduct SDC displays	87
F194 Perform personal equipment inspections	87
F171 Don or doff aircrew chemical warfare equipment	87
F187 Order, pick up, and inspect aircrew flight lunches	85
F189 Participate in general or specialized mission briefings, such as intelligence briefings	85
H295 Determine track categories and identification	84
G269 Perform identification functions	84
F197 Pick up or turn-in coffee or water jugs	84
H314 Perform voice tell procedures	84
G262 Perform airborne warning and control systems (AWACS) monitor duties	84
H300 Initiate tracks on reported positions	84
J337 Conduct radio checks with ground or airborne working agencies	83
H292 Coordinate identification of air or surface tracks with air or ground elements	82
I315 Analyze and identify types of ECM using SDCs	82
F193 Perform or practice emergency aircraft egress procedures	82
H302 Interpret IFF/SIF computer-generated returns for identifying air or surface tracks	80
F172 Don or doff aircrew protective clothing	80
H305 Maintain continuity of tracks	79
G217 Change situation display console (SDC) configurations	79
H303 Interrogate tracks for IFF/SIF responses	78
H313 Perform passive tracking activities	78
F192 Perform high-altitude procedures in altitude chambers	78
J379 Report unknown aircraft	77
H293 Coordinate voice tells with appropriate agencies	77
F198 Preflight aircrew life support equipment	76
H308 Maintain track logs	76
J361 Perform authentication procedures	76
J379 Report unknown aircraft	75
G274 Prepare areas of responsibility maps or charts	75

TABLE 10

REPRESENTATIVE TASK DIFFERENCES BETWEEN 3-/5-SKILL LEVEL AND 7-SKILL LEVEL PERSONNEL
(PERCENT MEMBERS PERFORMING)

TASKS	DAFSC 1A431/1A451 (N=218)	DAFSC 1A471 (N=30)	DIFFERENCE
H290 Complete correlation checks with air tracks common to E-3 and other agencies	79	33	46
I315 Analyze and identify types of ECM using SDCs	84	40	44
G268 Perform height accuracy checks	79	37	43
H314 Perform voice tell procedures	88	47	41
G269 Perform identification functions	83	43	39
I319 Determine positions, types, and intensities of ECM	78	40	38
H294 Detect and initiate targets	88	50	38
H305 Maintain continuity of tracks	80	43	36
H293 Coordinate voice tells with appropriate agencies	81	47	35
H313 Perform passive tracking activities	83	50	33
G262 Perform airborne warning and control systems (AWACS) monitor duties	86	53	32
H295 Determine track categories and identification	82	50	32
H302 Interpret IFF/SIF computer-generated returns for identifying air or surface tracks	81	50	31
H303 Interrogate tracks for IFF/SIF responses	80	50	30
H300 Initiate tracks on reported positions	83	53	29
H310 Monitor passive tracking activities	72	43	29

TABLE 10 (CONTINUED)

REPRESENTATIVE TASK DIFFERENCES BETWEEN 3-5-SKILL LEVEL AND 7-SKILL LEVEL PERSONNEL
(PERCENT MEMBERS PERFORMING)

TASKS	DAFSC 1A431/1A451 (N=218)		DAFSC 1A471 (N=30)		DIFFERENCE
C69 Evaluate maintenance or utilization of equipment, supplies, materials, or workspace	4		23		-20
C63 Evaluate computer programs	4		23		-20
E137 Destroy classified materials	30		50		-20
K388 Brief aircrews on special systems, threats, or procedures	7		27		-20
J360 Perform airspace management in nonradar environments	7		27		-20
B48 Prepare duty rosters	20		40		-20
G275 Prepare mission kits	10		30		-20
J366 Perform tactical air coordinator-airborne (TAC-A) duties	3		23		-20
E136 Coordinate TDY arrangements for personnel, such as billeting or travel, with appropriate agencies	17		37		-20
J333 Compile orbit changeover reports operational data	6		27		-20
E155 Prepare classified materials for mailing	6		27		-20
G245 Interpret operational orders	20		40		-20
G243 Insert operational information into computers	50		70		-20
A16 Establish work methods or controls	13		33		-20
J347 Encode or decode messages	29		50		-20

DAFSC 1A471. There are 30 DAFSC 1A471 personnel in the survey sample: Two in the Air Surveillance job, 12 in the Advanced Air Surveillance job, 6 in the Airborne Aircraft Control job, and 2 in the Senior Aircraft Control job. There were eight 7-skill level members who were not grouped. Seven-skill level members perform many of the same technical tasks as 3- and 5- skill level personnel. However, they are present in greater numbers in the advanced technical jobs (Advanced Air Surveillance and Senior Aircraft Control). As an average, they perform 141 tasks, where 5-skill levels perform 121 tasks, and 3-skill levels only perform 82. AFSC 1A471 personnel also have a much greater responsibility for scheduling and training functions. Typical tasks performed by 7-skill level members are shown in Table 10.

DAFSC 1A491/00. There are three respondents in the sample with DAFSC 1A491. One is in the Advanced Air Surveillance job. The second is in the Airborne Aircraft control job as an Operation Superintendent. The other 9-skill level respondent was not grouped by CODAP. Tasks performed by the three CEM-code members in the survey were so dissimilar from other personnel in the sample and from each other that they did not group with any of the identified jobs. Reported job titles include: Aircrew Enlisted Manager, NORAD Inspector General, and Career Functional Manager (TAC). As shown by the jobs including 9- and CEM-code members, these personnel are responsible for the administration and management of the enlisted AWCC career field. Tasks performed are mostly instructional, administrative, or supervisory. Compared to 7-skill level members, 9-and CEM-code personnel spend 20 percent more of their time in these managerial duties (See Table 7). Representative tasks performed by 9- and CEM-code members are listed in Table 12, and tasks differentiating them are shown in Table 13.

Summary

AFSC 1A4X1 personnel demonstrate the current typical pattern of career ladder progression. Three- and 5-skill level members perform very nearly the same technical work, 7-skill level members have additional administrative and some instructional responsibilities, and 9-skill level and CEM-code members are the managers and primary trainers/evaluators of the career ladder. Tables 11 and 12 show tasks differentiating 3-/5-and 7- skill level members and 7-skill levels and 9-/CEM-code members, respectively.

AFMAN 36-2108 SPECIALTY DESCRIPTION ANALYSIS

Survey data were compared to the AFMAN 36-2108 *Specialty Descriptions* for Airborne Warning Command and Control Systems Operators (dated 1 October 1992). Analysis of survey data suggests the jobs and tasks included in the current *Specialty Descriptions* accurately reflect the work being done by airmen with the specialty. However, once the EWD positions have been converted, appropriate functions will need to be added.

TABLE 11

**REPRESENTATIVE TASKS PERFORMED BY
7-SKILL LEVEL PERSONNEL**

TASKS	PERCENT MEMBERS PERFORMING (N=30)
G246 Interpret SDC displays	77
G217 Change situation display console (SDC) configurations	77
F194 Perform personal equipment inspections	77
F200 Review and sign off flight crew information files (FCIFs)	77
J362 Perform communications checks	77
F185 Operate galley equipment, such as ovens or coffeemakers	77
G219 Complete premission activities	73
J352 Maintain inner crew coordination	73
G270 Perform mission planning duties	73
F202 Secure equipment for take-offs or landings	73
G222 Conduct SDC checkouts	73
F189 Participate in general or specialized mission briefings, such as intelligence briefings	73
J337 Conduct radio checks with ground or airborne working agencies	73
B34 Conduct briefings	73
G204 Analyze airborne systems configuration tabular displays	70
G243 Insert operational information into computers	70
J365 Perform radio/telephone (RT) procedures	70
G230 Coordinate operations with external agencies	70
F198 Preflight aircrew life support equipment	70
J361 Perform authentication procedures	70
J355 Monitor assigned communications nets	68
J353 Maintain tactical situation awareness	67
J378 Report positions using references such as universal transverse mercator (UTM) or geographical reference (GEOREF) systems	67
G226 Coordinate communications network configurations and monitoring procedures with appropriate agencies	67
G253 Monitor ground stations status	67
F187 Order, pickup, and inspect aircrew flight lunches	67
F193 Perform or practice emergency aircraft egress procedures	67
G252 Monitor equipment performance	63
G287 Take actions in response to computer alarms or alerts	63
C57 Conduct performance feedback (PFW) sessions	63
G215 Brief relieving crews on current status	63
G273 Perform SDC operational checks	63
G213 Brief other sections on areas of responsibility	63
H299 Identify emergency symbols or codes	63
G279 Report equipment malfunctions or system degradations	60

TABLE 12

**REPRESENTATIVE TASKS PERFORMED BY
9-SKILL LEVEL AND CEM PERSONNEL**

TASKS	PERCENT MEMBERS PERFORMING (N=6)
A7 Develop inspection procedures	83
A3 Determine budget requirements	83
A12 Establish mission priorities	83
A4 Determine logistics requirements, such as equipment personnel, or space	83
E139 Draft messages	83
A25 Review recommendations for awards or decorations	83
E156 Prepare miscellaneous supply forms, such as AF Forms 2005 or DD Forms 1150	83
B35 Conduct conferences or meetings	83
D131 Select individuals for specialized training courses	83
C71 Evaluate operational reports	67
C84 Prepare replies to inspection reports	67
C62 Evaluate budget requirements	67
B41 Draft directives	67
A13 Establish operating instructions (OIs) or standing operating procedures (SOPs)	67
A9 Develop organizational or functional charts	67
B44 Implement cost-reduction programs	67
A30 Schedule staff assistance visits	67
E135 Compile information for operational reports	67
C55 Analyze inspection reports or charts	67
A32 Write job descriptions	67
B50 Research operational procedures	67
G270 Perform mission planning duties	67
J365 Perform radio/telephone (RT) procedures	67
J353 Maintain tactical situation awareness	67
F200 Review and sign off flight crew information files (FCIFs) or mission operations read files (MORFS)	67
G274 Prepare areas of responsibility maps or charts	67
G219 Complete premission activities	67
J337 Conduct radio checks with ground or airborne working agencies	67
J355 Monitor assigned communications nets	67
F172 Don or doff aircrew protective clothing	67
G212 Brief console relief on current status	67
C67 Evaluate inspection procedures	50
A20 Plan briefings	50
B33 Brief visitors on organization operations	50

TABLE 13

**REPRESENTATIVE TASK DIFFERENCES BETWEEN 7-SKILL LEVEL AND 9-/CEM PERSONNEL
(PERCENT MEMBERS PERFORMING)**

TASKS		DAFSC 1A471 (N=218)	DAFSC 1A491/1A400 (N=6)	DIFFERENCE
F190	Participate in life support training seminars	67	17	50
B51	Supervise Airborne Warning Command and Control Systems Specialists (AWACS 11750)	47	17	47
F201	Review technical orders for abnormal or emergency inflight procedures	60	17	43
F181	Maintain current status of flight manuals, safety and operational supplements, or flight crew checklists	60	33	43
G246	Interpret SDC displays	77	33	43
G217	Change situation display console (SDC) configuration	77	33	43
F202	Secure equipment for take-offs or landings	73	33	40
G222	Conduct SDC checkouts	73	33	40
E164	Type correspondence	57	17	40
B48	Prepare duty rosters	40	0	40
J372	Relay information to other E-3 aircraft, friendly aircraft, or ground stations by electronic data links	40	0	40
A31	Schedule work assignments	37	0	37
G204	Analyze airborne systems configuration tabular displays	70	33	37
F198	Preflight aircrew life support equipment	70	33	37
F196	Pick up or turn-in aircraft life support equipment	37	0	37

TABLE 13 (CONTINUED)

REPRESENTATIVE TASK DIFFERENCES BETWEEN 7-SKILL LEVEL AND 9-/CEM PERSONNEL
(PERCENT MEMBERS PERFORMING)

TASKS		DAFSC		DIFFERENCE
		1A471 (N=218)	1A491/1A400 (N=6)	
G231	Coordinate or preplan special instructions for evaluation flights with appropriate agencies	13	33	-20
C67	Evaluate inspection procedures	30	50	-20
D127	Schedule formal training programs	13	33	-20
K419	Evaluate mission compliance with rules of engagement	13	33	-20
K437	Transmit changes of mission or new mission information to aircraft	13	33	-20
G275	Prepare mission kits	30	50	-20
C68	Evaluate job descriptions	30	50	-20
C58	Conduct staff assistance visits	13	33	-20
K416	Evaluate aircraft voicetold positional information	13	33	-20
H309	Maintain weapons' status	10	33	-23
G283	Review threat countermeasures information	43	67	-23
C77	Evaluate suggestions	10	33	-23
C66	Evaluate individuals for recognition	43	67	-23
K420	Evaluate mission compliance with flight safety regulations	10	33	-23
E143	Locate procedural information in security publications	27	50	-23
B45	Implement safety or security programs	27	50	-23

TRAINING ANALYSIS

Occupational survey data can be used to assist in the development of entry-level training programs. Factors used to review training documents include jobs performed by first-enlistment personnel, the distribution of first-enlistment personnel across the career ladder jobs, percent first-job (1-24 months TAFMS), and first-enlistment (1-48 months TAFMS) members performing specific tasks, as well as TE and TD ratings

TE and TD Data

TE and TD data are secondary factors that can assist training personnel focus on what tasks should be emphasized in entry-level training. These ratings, based on the judgement of senior AWCCS NCOs working in the field, were collected to provide training personnel with a rank-ordering of tasks considered important for formal training, along with a measure of the difficulty of those tasks. When combined with data on the percentages of first-enlistment personnel performing tasks, comparisons can be made to determine if training adjustments are necessary. For example, tasks receiving high ratings on both task factors and performed by moderate to high percentages of members should be taught in resident training. On the other hand, tasks with high TE and TD ratings, but performed by low percentages of respondents, may be more appropriate for OJT. Tasks with low TE and TD ratings probably ought to be omitted from OJT for first-enlistment personnel, but this decision must be weighed against percentages of personnel performing the tasks and criticality of the tasks.

To help training personnel focus on tasks that are most appropriate for entry-level training, an additional factor, the Automated Training Indicators (ATIs), was assigned to each task in the inventory. A computer program considered percent first-enlistment members performing, TE and TD ratings, and the Course Training Decision Table found in Air Education and Training Command Regulation (AETCR) 52-22, Atch 1, to assign the value to each task corresponding to the 18 training decisions on the table. The decision table and explanation of ATIs precede the listing of tasks in descending order of ATI in the Training Extract. Training personnel should focus on tasks with an ATI of 18, which suggests these tasks should be in the entry-level course.

Sample tasks having the highest TE ratings, with accompanying first-enlistment members performing data, are listed in Table 14. These tasks have below average TD ratings with high percent members performing. These tasks are primarily related to common aircrew functions, general operating procedures, and simulator functions, all of which are common duties performed by first-enlistment personnel.

TABLE 14

TASKS RATED HIGHEST IN TRAINING EMPHASIS (TE)

TASKS	PERCENT MEMBERS PERFORMING					(OFF)	
	TNG	IST	IST	TASK	TNG		
	EMP**	JOB	ENL	DIFF*	EMP***		
H299 Identify emergency symbols or codes	7.1 1	76	81	4.27	4.81		
H294 Detect and initiate targets	6.9 6	89	92	4.16	2.56		
G262 Perform airborne warning and control systems (AWACS) monitor duties	6.89	81	86	4.19	3.62		
F193 Perform or practice emergency aircraft egress procedures	6.8 2	86	87	3.93	4.56		
H305 Maintain continuity of tracks	6.7 9	76	80	4.88	2.75		
H300 Initiate tracks on reported positions	6.7 5	84	80	3.89	2.56		
H314 Perform voice tell procedures	6.6 4	92	95	4.08	.25		
G270 Perform mission planning duties	6.6 4	81	82	4.40	4.94		
F200 Review and sign off flight crew information files (FCIFs) or mission operations read files (MORFs)	6.61	86	81	2.80	3.00		
F183 Operate emergency escape hatches	6.5 7	22	21	3.25	4.56		
G287 Take actions in response to computer alarms or alerts	6.5 7	54	59	4.48	3.38		
F194 Perform personal equipment inspections	6.4 3	89	84	3.47	3.69		
J365 Perform radio/telephone (RT) procedures	6.3 9	65	68	4.23	5.06		
F184 Operate fire extinguishers	6.3 6	8	13	3.36	3.69		
G246 Interpret SDC displays	6.3 2	73	80	5.11	3.81		

* TD MEAN = 5.00 S.D. = 1.00

** TE MEAN = 2.29 S.D. = 1.94 (HIGH TE = 4.23)

*** TE MEAN = 2.14 S.D. = 1.51 (HIGH TE = 3.65)

TABLE 14 (CONTINUED)

TASKS RATED HIGHEST IN TRAINING EMPHASIS (TE)

TASKS	PERCENT MEMBERS PERFORMING					(OFF)		TNG EMP***
	TNG EMP**	1ST JOB	1ST ENL	TASK DIFF*	TNG EMP***			
F171	Don or doff aircrew chemical warfare equipment	6.2 9	84	82	3.86	5.19		
H303	Interrogate tracks for IFF/SIF responses	6.2 1	78	84	4.06	3.69		
F172	Don or doff aircrew protective clothing	6.1 8	76	78	3.68	5.19		
F181	Maintain current status of flight manuals, safety and operational supplements, or flight crew checklists	6.14	51	56	3.62	1.75		
J352	Maintain inner crew coordination	6.1 1	51	46	4.83	4.38		
G222	Conduct SDC checkouts	6.1 1	84	86	3.99	3.56		
H313	Perform passive tracking activities	6.0 4	89	94	5.30	.25		
F198	Preflight aircrew life support equipment	6.0 4	68	68	3.34	3.00		
H290	Complete correlation checks with air tracks common to E-3 and other agencies	6.00	84	87	4.17	2.25		
F173	Don or doff ground crew chemical warfare equipment	5.9 6	65	68	3.72	4.88		
H295	Determine track categories and identification	5.9 6	84	82	4.73	1.38		
F185	Operate galley equipment, such as ovens or coffee makers	5.9 6	70	77	2.72	3.06		
G212	Brief console relief on current status	5.9 6	65	62	4.33	3.31		
J337	Conduct radio checks with ground or airborne working agencies	5.9 3	65	70	3.85	3.81		
J362	Perform communications checks	5.9 3	35	37	4.10	4.19		

* TD MEAN = 5.00 S.D. = 1.00

** TE MEAN = 2.29 S.D. = 1.94 (HIGH TE = 4.23)

*** TE MEAN = 2.14 S.D. = 1.51 (HIGH TE = 3.65)

A selection of tasks with the highest TD ratings is listed in Table 15. These deal primarily with Weapons Control functions and some training duties. These tasks have extremely low TE ratings. This may indicate that tasks associated with weapons control should be performed by members of the 5- and 7-skill levels. Most of these tasks are not performed by first-job personnel, but are performed by a small percentage of 5- and 7-skill level members.

First-Enlistment AFSC 1A4X1 Personnel

Seventy-nine Airborne Warning Command Control (AWCC) personnel indicated they are in their first enlistment. All are in the Air Surveillance cluster. Twenty-five are in the Entry-Level Air Surveillance job, 45 perform the Air Surveillance job, and two are in the Advanced Air Surveillance job. Although performing the same kinds of tasks as the rest of first-enlistment personnel, seven respondents did not group within the jobs identified by CODAP. Table 16 shows relative time spent on duties by first-enlistment personnel. Figure 2 shows first-enlistment job data for the career ladder clusters and jobs. Representative tasks performed by first-enlistment personnel are shown in Table 17. Most of the tasks performed by the highest percentage of first-enlistment personnel deal with basic air surveillance functions and common aircrew tasks.

AFSC 1A4X1 Training Documents

The STS and POI for the AWCCS career field were not available for analysis at the time of this survey. The documents were both in tentative draft formats due to the development of the new 3-skill level course. Data from this survey have been provided for the technical training personnel for use in preparing for the upcoming Utilization and Training Workshop.

JOB SATISFACTION ANALYSIS

Respondents were asked to indicate how interested they were in their job, if they felt their talents and training were being used, if they were satisfied with their jobs, and what their reenlistment intentions were. Satisfaction indicators for TAFMS groups in the present study were compared to those reported by respondents in other aircrew career ladders surveyed in 1992, to those reported in the last OSR, and across the two clusters and six jobs identified.

Table 18 shows the comparison of job satisfaction indicators for AFSC 1A4X1 to those reported in 1992 surveys of three other aircrew specialties. Overall, AFSC 1A4X1 personnel are somewhat less satisfied than members of the related career fields. Members in the current survey

TABLE 15

TASKS RATED HIGHEST IN TASK DIFFICULTY (TD)

TASKS	TASK DIFF	PERCENT MEMBERS PERFORMING							TNG EMP
		1ST		ENL		LVL		LVL	
		JOB	1ST	ENL	LVL				
						-5	-7		
K400 Determine geometries	7.48	0	0	0	0	3	3	.25	
K413 Evaluate adversary aircraft maneuvers during DACT or ACT exercises	7.45	0	1	0	2	3	3	.25	
K395 Conduct tactical intercepts, such as offensive counter air or defensive counter air	7.44	0	0	0	1	3	3	.25	
K399 Determine aircraft positions during dissimilar or aerial combat tactics (DACT or ACT) exercises	7.44	0	0	0	4	3	3	.43	
A23 Plan operational exercises, other than aerospace defense	7.34	0	1	0	7	23	23	.21	
K401 Determine whether to proceed with aircraft missions or intercepts	7.31	0	0	0	1	7	7	.25	
K409 Direct tactics, such as formations, headings, or geometries	7.29	0	0	0	1	3	3	.25	
A19 Plan aerospace defense exercises	7.24	0	1	0	4	20	20	.18	
K391 Conduct covert intercepts	7.24	0	0	0	1	3	3	.25	
K403 Direct aircraft in precise timing holding patterns to achieve critical timing positioning parameters	7.12	0	0	0	3	7	7	.57	
D101 Develop career development course (CDC) materials	7.02	0	0	0	1	7	7	.36	
K414 Evaluate aircraft flow to assigned targets, tankers, or airspace	6.95	0	0	0	4	7	7	.25	
K398 Deconflict aircraft with respect to routes, altitudes, or headings	6.94	0	0	0	10	17	17	1.11	
K430 Plan Red Force tactics	6.90	0	0	0	1	7	7	.64	
K402 Direct aircraft flow to assigned targets, tankers, or airspace	6.81	0	0	0	4	13	13	.79	
D104 Develop or revise plans of instruction (POIs)	6.74	0	1	0	6	20	20	.89	

TD MEAN = 5.00 S.D. = 1.00

TE MEAN = 2.29 S.D. = 1.94 (High TE = 4.23)

TABLE 15 (CONTINUED)

TASKS RATED HIGHEST IN TASK DIFFICULTY (TD)

TASKS	TASK DIFF	PERCENT MEMBERS PERFORMING						
		1ST		5		7		TNG EMP
		JOB	ENL	LVL	LVL	LVL	LVL	
C89 Write staff studies, surveys, or special reports, other than training reports	6.73	0	0	0	10	33	64	
K405 Direct buffer zone operations	6.72	0	0	0	1	7	25	
D102 Develop course curriculum	6.65	0	0	0	4	20	75	
B41 Draft directives	6.65	0	0	0	8	27	36	
D105 Develop or revise training materials	6.64	0	1	15	27	154		
D108 Develop specialty training standards (STSs)	6.64	0	0	1	3	50		
K438 Transmit DACT or ACT commands or information in tactical control environments	6.61	0	0	0	0	25		
K419 Evaluate mission compliance with rules of engagement	6.61	0	0	6	13	25		
C86 Validate manufacturers technical data	6.59	0	1	4	20	36		
K420 Evaluate mission compliance with flight safety regulations	6.58	8	5	7	10	57		
K421 Execute flying safety actions	6.57	11	11	9	13	111		
K392 Conduct defensive mission	6.52	3	3	3	13	57		
K393 Conduct offensive missions	6.49	0	0	3	10	57		
K408 Direct release of airdrops, air-to-air weapons, or air-to-ground weapons	6.48	0	0	3	10	25		
K417 Evaluate computer-generated tactics solutions	6.48	0	0	3	0	25		
D103 Develop job qualification standards (JQSs)	6.47	0	0	1	3	75		
E138 Develop technical data publications	6.46	0	0	1	7	14		
C59 Conduct standard evaluation checks	6.45	0	0	11	17	111		

TD MEAN = 5.00

S.D. = 1.00

TE MEAN = 2.29

S.D. = 1.94 (High TE = 4.23)

TABLE 16
RELATIVE TIME SPENT ON DUTIES BY
FIRST-ENLISTMENT PERSONNEL
(N=79)

<u>DUTIES</u>	<u>PERCENT TIME SPENT</u>
A ORGANIZING AND PLANNING	1
B DIRECTING AND IMPLEMENTING	2
C INSPECTING AND EVALUATING	1
D TRAINING	2
E PERFORMING ADMINISTRATIVE TASKS	1
F PERFORMING COMMON AIRCREW TASKS	10
G PERFORMING GENERAL OPERATING AND SIMULATOR FUNCTIONS	20
H PERFORMING SURVEILLANCE FUNCTIONS	5
I PERFORMING ECM, ECCM, AND ELECTRONIC WARFARE FUNCTIONS	1
J PERFORMING COMMUNICATION COMMAND AND CONTROL (CC) FUNCTIONS	16
K PERFORMING WEAPONS CONTROL FUNCTIONS	40

JOBS PERFORMED BY AFSC 1A4X1 FIRST-ENLISTMENT PERSONNEL

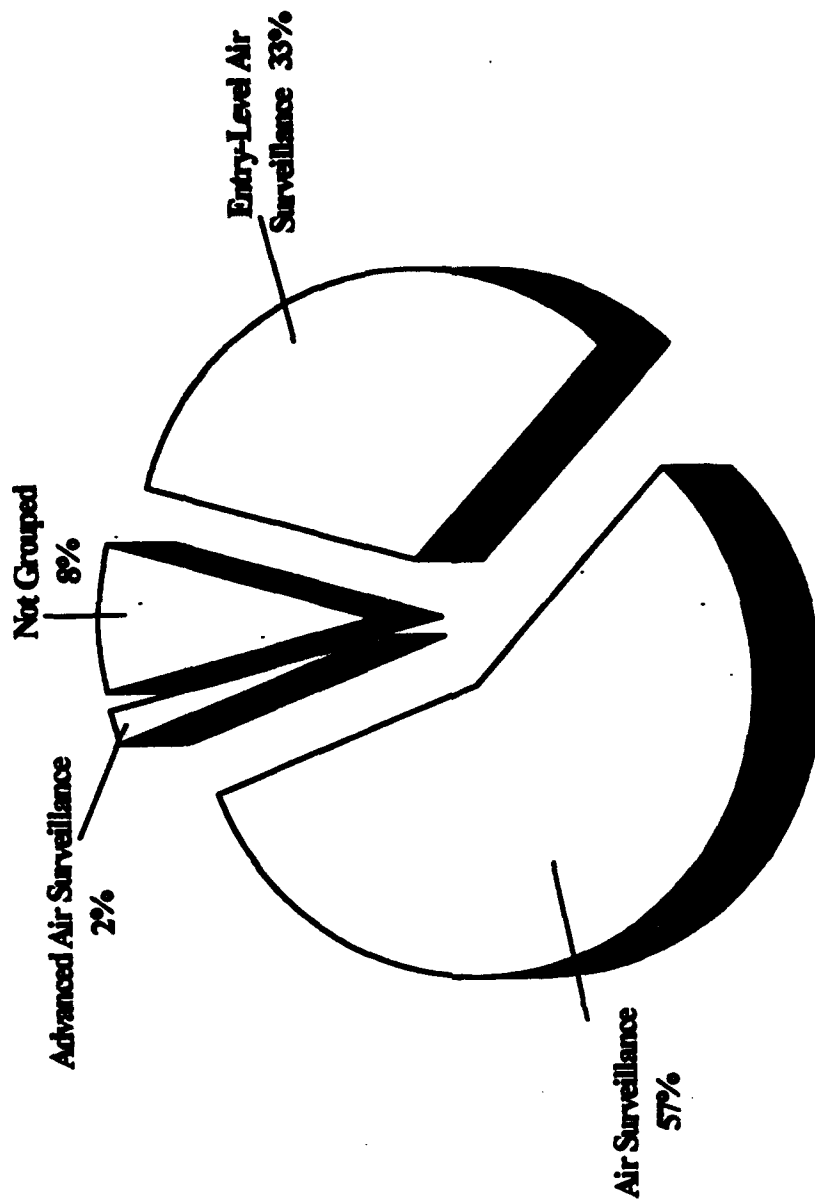


FIGURE 2

TABLE 17
REPRESENTATIVE TASKS PERFORMED
BY FIRST-ENLISTMENT PERSONNEL

TASKS	PERCENT MEMBERS PERFORMING (N=79)
H314 Perform voice tell procedures	95
H313 Perform passive tracking activities	94
H294 Detect and initiate targets	92
F197 Pick up or turn- in coffee or water jugs	91
G268 Perform height accuracy checks	91
H293 Coordinate voice tells with appropriate agencies	90
I315 Analyze and identify types of ECM using SDCs	90
F187 Order, pickup, and inspect aircrew flight lunches	87
H290 Complete correlation checks with air tracks common to E-3	87
I319 Determine positions, types, and intensities of ECM	87
F193 Perform or practice emergency aircraft egress procedures	87
G222 Conduct SDC checkouts	86
H302 Interpret IFF/SIF computer-generated returns for identifying air or surface tracks	86
G262 Perform airborne warning and control systems (AWACS) monitor duties	86
F194 Perform personal equipment inspections	84
H303 Interrogate tracks for IFF/SIF responses	84
H295 Determine track categories and identification	82
G270 Perform mission planning duties	82
G269 Perform identification functions	82
F200 Review and sign off flight crew information files (FCIFs) or mission operations read files (MORFs)	81
F189 Participate in general or specialized mission briefings, such as intelligence briefings	81
H299 Identify emergency symbols or codes	81
H305 Maintain continuity of tracks	80
G246 Interpret SDC displays	80
H292 Coordinate identification of air or surface tracks with air or ground elements	80
H300 Initiate tracks on reported positions	80
I327 Report positions, types, and intensities of ECM	80
F172 Don or doff aircrew protective clothing	78
H310 Monitor passive tracking activities	78
F185 Operate galley equipment, such as ovens or coffee makers	77

TABLE 18

COMPARISON OF TAFMS GROUP JOB SATISFACTION INDICATORS
IN CURRENT STUDY TO A COMPARATIVE SAMPLE
(PERCENT MEMBERS PERFORMING)

	1-48 MOS TAFMS			49-96 MOS TAFMS			97+ MOS TAFMS		
	1992			1992			1992		
	AFSC	COMP	AFSC	COMP	AFSC	COMP	AFSC	COMP	
	1A4X1	SAMPLE	1A4X1	SAMPLE	1A4X1	SAMPLE	1A4X1	SAMPLE	
	(N=79)	(N=154)	(N=56)	(N=158)	(N=56)	(N=158)	(N=117)	(N=448)	
<u>EXPRESSED JOB INTEREST:</u>									
	81	88	73	97	82	88			
	11	7	18	1	7	8			
	8	5	9	2	11	4			
<u>PERCEIVED UTILIZATION OF TALENTS:</u>									
	79	88	91	94	83	31			
	21	12	9	6	17	69			
<u>PERCEIVED UTILIZATION OF TRAINING:</u>									
	96	94	87	96	84	90			
	4	6	13	4	16	10			
<u>SENSE OF ACCOMPLISHMENT FROM WORK:</u>									
	77	87	64	94	75	82			
	8	3	11	2	6	7			
	15	10	25	4	19	11			
<u>REENLISTMENT INTENTIONS:</u>									
	65	75	73	85	74	76			
	35	25	27	15	12	6			
	0	0	0	0	14	18			

*Less than 1 percent

NOTE: Comparative sample is composed of aircrew career ladders surveyed in 1992. AFSCs surveyed in sample are 118X0, 115X0, and 112X0.

do feel their talents are being utilized more effectively than did those in the 1992 comparative sample. Despite the more negative indicators in the current survey, members in both groups have very positive satisfaction ratings.

Table 19 compares job satisfaction indicators for the current survey to those of the previous study. Job satisfaction indicators for the current study are dramatically more positive for first-enlistment personnel (1-48 months) and mixed for second-enlistment (49-96 months) and career (97+ months) TAFMS groups. Twice as many first-enlistment personnel in this study find their jobs interesting as in the previous study.

Table 20 shows reported job satisfaction by specialty jobs. According to these results, all members, except the Senior Aircraft Control personnel, show high job interest. Positive responses were slightly lower in the areas of perceived utilization of talents and training across all identified jobs. Again, all members reported a positive sense of accomplishment with the exceptions of the Senior Aircraft Controllers. The majority of enlisted personnel in all jobs plan on reenlisting at the end of their current term. Two of the three Senior Aircraft Controllers are eligible for retirement at the end of their next term and plan to do so. The seeming dissatisfaction in members of the Senior Control job may be attributed to the increase of administrative and supervisory functions and the decrease in technical tasks performed. Officers in the Weapons Director job seem satisfied with their work.

The AFSC 1A4X1 JIs included questions pertaining to the amounts of alert and TDY for AWCC personnel to determine their effects, if any, on job satisfaction. Job satisfaction data were compiled by groups based on the number of days per month personnel spent on alert and TDY. Based on these data, no obvious patterns of dissatisfaction could be determined. Overall, members of each group reported that they found their jobs at least fairly interesting and had a positive sense of accomplishment from their work.

Summary

Job satisfaction for this career ladder seems somewhat negative compared to that of three similar AFSCs surveyed in 1992. However, indicators are noticeably higher for first-enlistment respondents in the current study over those reported in 1987. Indicators were mixed in other groups in comparing current survey to the previous survey. Job interest was high for all specialties except in the Senior Aircraft Control job, while perceived utilization of talents and training was mixed.

TABLE 19

**COMPARISON OF JOB SATISFACTION DATA FOR AFSC 1A4X1
TAFMS GROUPS IN CURRENT AND PREVIOUS STUDY
(PERCENT MEMBERS PERFORMING)**

	1-48 MOS TAFMS		49-96 MOS TAFMS		97+ MOS TAFMS	
	1993	1987	1993	1987	1993	1987
	(N=79)	(N=22)	(N=56)	(N=36)	(N=169)	(N=117)
<u>EXPRESSED JOB INTEREST:</u>						
Interesting	81	48	73	83	82	87
So-So	11	23	18	6	7	8
Dull	8	27	9	11	11	5
<u>PERCEIVED UTILIZATION OF TALENTS:</u>						
Fairly Well To Perfectly	79	55	91	81	83	80
Little Or Not At All	21	45	9	19	17	20
<u>PERCEIVED UTILIZATION OF TRAINING:</u>						
Fairly Well To Perfectly	96	70	87	89	84	86
Little Or Not At All	4	29	13	11	16	14
<u>SENSE OF ACCOMPLISHMENT FROM WORK:</u>						
Satisfied	77	53	64	58	75	74
Neutral	8	16	11	8	6	8
Dissatisfied	15	30	25	33	19	18
<u>REENLISTMENT INTENTIONS:</u>						
Will/Probably Will Reenlist	73	58	73	83	74	82
Will Not/Probably Will Not Reenlist	27	42	27	17	12	5
Will Retire	0	0	0	0	14	12

TABLE 20

**JOB SATISFACTION DATA FOR CLUSTERS AND JOBS
(PERCENT MEMBERS PERFORMING)**

	AIR SURVEILLANCE CLUSTER				COMMAND AND CONTROL CLUSTER			
	ENTRY- LEVEL	ADV AIR	AIR SURV	ADV SURV	ABN ARCFT CTRL	SENIOR ARCFT CTRL	AIR WPNS DIR	
	(ST030) (N=41)	(ST060) (N=105)	(ST077) (N=56)	(ST033) (N=26)	(ST052) (N=03)	(ST035) (N=58)		
EXPRESSED JOB INTEREST:								
Interesting	68	77	84	88	33	90		
So-So	22	8	13	8	67	8		
Dull	10	15	2	4	0	2		
PERCEIVED UTILIZATION OF TALENTS:								
Excellent To perfect	3	5	23	23	0	2		
Fairly To Very Well	80	70	59	65	67	72		
None To Very Little	17	25	16	12	33	26		
PERCEIVED UTILIZATION OF TRAINING:								
Excellent To Perfect	27	11	22	23	0	24		
Fairly To Very Well	71	77	68	58	67	71		
None To Very Little	2	12	10	19	33	5		

*Data include responses from AFSC 13B3 (1745) Air Weapons Director officers

TABLE 20 (CONTINUED)

**JOB SATISFACTION DATA FOR CLUSTERS AND JOBS
(PERCENT MEMBERS PERFORMING)**

ENTRY- LEVEL	AIR SURVEILLANCE CLUSTER				COMMAND AND CONTROL CLUSTER			
	AIR SURV (ST030) (N=41)	AIR SURV (ST060) (N=105)	ADV AIR SURV (ST077) (N=56)	ABN ARCFT CTRL (ST033) (N=26)	SENIOR ARCFT CTRL (ST052) (N=03)	AIR WPNS DIR (ST035) (N=58)		
	76	70	88	65	33	69		
	7	8	3	15	0	9		
	17	22	9	19	67	22		
	68	68	75	20	0	N/A		
	27	30	13	1	33	N/A		
	5	2	9	4	67	N/A		
	0	0	4	74	0			

SENSE OF ACCOMPLISHMENT:

Satisfied

Neutral

Dissatisfied

REENLISTMENT INTENTIONS:

Will/Probably Will Reenlist

Will Not/Probably Will Not Reenlist

Will Retire

*Other:

*Data include responses from AFSC 13B3 (1745) Air Weapons Director officers

IMPLICATIONS

There are essentially two sets of jobs in AFSC 1A4X1: Air Surveillance and Command and Control. With the addition of Air Weapons Director functions, this career ladder will be responsible for most of the tracking, communication, and weapons control of air assets in a threat area or theater of operation. There are very few changes in this study from the last time it was surveyed. The most notable change is the addition of the Air Weapons Director functions to the list of tasks to be performed by career ladder personnel. Training issues for the new EWDs will be increasingly crucial following the conversion of Weapons Director functions.

Three-skill level personnel perform basic technical tasks. Five-skill level members have a broader job that includes all tasks 3-skill level members perform, plus a number of tasks related to scheduling, training, and supervising. Seven-skill level members are first-line supervisors performing a mixture of technical activities involving handling of classified documents, coordination with senior battlestaff personnel, and training/evaluation, as well as purely supervisory tasks.

Job satisfaction indicators are a concern. Personnel in this study are less satisfied with their jobs than members of similar aircrew career fields and less satisfied than members of the previous survey. Although first-enlistment personnel are highly interested in their jobs, there is a feeling that little use is being made of personnel talents and training. This may be attributed to the routine nature of some of the daily tasks performed as part of the common aircrew duties assigned to personnel onboard aircraft and the heavy TDY burden of the career ladder. No data could be found to support that alert and TDY schedules have a negative effect on personnel job satisfaction.

APPENDIX A

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TABLE A1
ENTRY-LEVEL
AIR SURVEILLANCE JOB
STG 30

TYPICAL TASKS	PERCENT MEMBERS PERFORMING
H314 Perform voice tell procedures	95
G268 Perform height accuracy checks	93
F197 Pick up or turn in coffee or water jugs	90
I315 Analyze and identify types of ECM using SDCs	90
H294 Detect and initiate targets	88
G262 Perform airborne warning and control systems monitor duties (AWACS)	88
H313 Perform passive tracking activities	88
I319 Determine positions, types, and intensities of ECM	88
G270 Perform mission planning duties	85
F193 Perform or practice emergency aircraft egress procedures	84
F200 Review and sign off flight crew information files (FCIFs) or mission operations read files (MORFs)	80
G269 Perform identification functions	78
F187 Order, pickup, and inspect aircrew flight lunches	78
H300 Initiate tracks on reported positions	76
F189 Participate in general or specialized mission briefings, such as intelligence briefings	76
H293 Coordinate voice tells with appropriate agencies	76
F194 Perform personal equipment inspections	76
F172 Don or doff aircrew protective clothing	76
H308 Maintain track logs	76
G222 Conduct SDC (Situational Display Console) checkouts	73
H295 Determine track categories and identification	73
H299 Identify emergency symbols or codes	73
H290 Complete correlation checks with air tracks common to E-3 and other agencies	71
F185 Operate galley equipment, such as ovens or coffeemakers	71
H303 Interrogate tracks for IFF/SIF responses	68
H305 Maintain continuity of tracks	68
H292 Coordinate identification of air or surface tracks with air or ground elements	56
J379 Report unknown aircraft	56

TABLE A2
AIR SURVEILLANCE JOB
STG 60

TYPICAL TASKS	PERCENT MEMBERS PERFORMING
H314 Perform voice tell procedures	98
H294 Detect and initiate targets	97
G222 Conduct SDC (Situational Display Console) checkouts	96
G262 Perform airborne warning and control systems (AWACS) monitor duties	94
G270 Perform mission planning duties	94
H313 Perform passive tracking activities	94
G269 Perform identification functions	94
H299 Identify emergency symbols or codes	94
F189 Participate in general or specialized mission briefings, such as intelligence briefings	94
I315 Analyze and identify types of ECM using SDCs	92
H302 Interpret IFF/SIF computer-generated returns for identifying air or surface tracks	92
H295 Determine track categories and identification	92
H303 Interrogate tracks for IFF/SIF responses	92
H292 Coordinate identification of air or surface tracks with air or ground elements	92
F185 Operate galley equipment, such as ovens or coffeemakers	91
H305 Maintain continuity of tracks	91
H293 Coordinate voice tells with appropriate agencies	91
F187 Order, pickup, and inspect aircrew flight lunches	90
H300 Initiate tracks on reported positions	90
F194 Perform personal equipment inspections	90
J379 Report unknown aircraft	90
F197 Pick up or turn in coffee or water jugs	90
F200 Review and sign off flight crew information files (FCIFs)	88
H290 Complete correlation checks with air tracks common to E-3 and other agencies	88
F193 Perform or practice emergency aircraft egress procedures	87
G273 Perform SDC operational checks	87
F172 Don or doff aircrew protective clothing	86
H308 Maintain track logs	83
G268 Perform height accuracy checks	83
H310 Monitor passive tracking activities	83
J337 Conduct radio checks with ground or airborne working agencies	81
I319 Determine positions, types, and intensities of ECM	80
F198 Preflight aircrew life support equipment	79

TABLE A3
ADVANCED AIR SURVEILLANCE JOB
STG 77

TYPICAL TASKS	PERCENT MEMBERS PERFORMING
G262 Perform airborne warning and control systems (AWACS) monitor duties	100
F185 Operate galley equipment, such as ovens or coffeemakers	100
G269 Perform identification functions	98
F187 Order, pickup, and inspect aircrew flight lunches	98
H300 Initiate tracks on reported positions	98
J337 Conduct radio checks with ground or airborne working agencies	98
H314 Perform voice tell procedures	96
G222 Conduct SDC (Situational Display Console) checkouts	96
G222 Conduct SDC (Situational Display Console) checkouts	96
G270 Perform mission planning duties	96
H299 Identify emergency symbols or codes	96
H302 Interpret IFF/SIF computer-generated returns for identifying air or surface tracks	96
H295 Determine track categories and identification	96
H303 Interrogate tracks for IFF/SIF responses	96
J379 Report unknown aircraft	96
G273 Perform SDC operational checks	96
H294 Detect and initiate targets	95
H305 Maintain continuity of tracks	95
F194 Perform personal equipment inspections	95
H290 Complete correlation checks with air tracks common to E-3 and other agencies	95
H308 Maintain track logs	95
H293 Coordinate voice tells with appropriate agencies	93
G268 Perform height accuracy checks	93
F197 Pick up or turn in coffee or water jugs	91
F200 Review and sign off flight crew information files (FCIFs)	91
H313 Perform passive tracking activities	91
H292 Coordinate identification of air or surface tracks with air or ground elements	91
F172 Don or doff aircrew protective clothing	91
I319 Determine positions, types, and intensities of ECM	91
F193 Perform or practice emergency aircraft egress procedures	89
H310 Monitor passive tracking activities	89
F198 Preflight aircrew life support equipment	86

TABLE A4

**AIRBORNE AIRCRAFT CONTROL JOB
STG 33**

TYPICAL TASKS	PERCENT MEMBERS PERFORMING
J359 Pass immediate air request data	100
J361 Perform authentication procedures	100
J337 Conduct radio checks with ground or airborne working agencies	100
J344 Coordinate rescue actions with agencies	100
G270 Perform mission planning duties	100
J353 Maintain tactical situation awareness	96
J378 Report positions using references such as universal transverse mercator (UTM) or geographical ref (GEOREF) system	96
J368 Receive immediate air request data	96
J362 Perform communications checks	96
J338 Confirm mission results	96
J356 Monitor employment of assigned tactical air assets air operations	92
G288 Update battle staff displays	92
J333 Compile orbit changeover reports operational data	92
J331 Broadcast threat information to tactical aircraft	92
J336 Conduct premission briefings	92
G210 Break fragmentary orders	92
J352 Maintain inner crew coordination	88
G286 Simulate pilots for realistic AG and GA radio communications	88
J360 Perform airspace management in nonradar environments	88
G280 Review ATOs	88
J328 Analyze varying tactical situations	88
J350 Identify and report communication malfunctions	88
J355 Monitor assigned communication nets	85
G239 Extract mission data from computer systems	85
J340 Coordinate and control activities of support aircraft, such as forward air control and tactical airlift	85
F194 Perform personal equipment inspections	85
G282 Review operations plans	85
G215 Brief relieving crews on current status	85
J357 Monitor joint service operations	85

TABLE A5
SENIOR AIRCRAFT CONTROLLER
STG 52

TYPICAL TASKS	PERCENT MEMBERS PERFORMING
J362 Perform communications checks	100
G259 Operate KL-43 encryption devices	100
E141 Inventory classified documents	100
E137 Destroy classified materials	100
J337 Conduct radio checks with ground or airborne working agencies	100
G275 Prepare mission kits	100
G238 Establish communications network configurations and monitoring procedures	100
G265 Perform communications network configurations and monitoring procedures	100
J355 Monitor assigned communications nets	100
G226 Coordinate communications network configurations and monitoring procedures with appropriate agencies	100
G282 Review operations plans	100
H307 Maintain mission logs	100
J348 Establish communications links	100
G288 Update battle staff displays	100
G270 Perform mission planning duties	100
G236 Determining mission communications requirements	100
J353 Maintain tactical situation awareness	100
G230 Coordinate operations with external agencies	100

TABLE A6**AIR WEAPONS DIRECTOR (OFFICERS)
STG 35**

TYPICAL TASKS	PERCENT MEMBERS PERFORMING
K382 Accept control of aircraft from other control agencies	98
K444 Transmit weapons safe checks to aircraft	98
G262 Perform airborne warning and control systems (AWACS) monitor duties	98
K398 Deconflict aircraft with respect to routes, altitudes, or heading	97
K395 Conduct tactical intercepts, such as offensive counter air or defensive counter air	97
K431 Position aircraft for intercepts	97
K399 Determine aircraft positions during dissimilar or aerial combat tactics (DACT or ACT) exercises	95
K390 Conduct air refueling operations	95
K423 Handoff aircraft to other controlling agencies	95
K445 Vector aircraft manually or using computer-generated solutions	95
K393 Conduct offensive missions	95
K348 Transmit DACT or ACT commands or information in tactical control environments	93
K442 Transmit target information to aircraft, such as bearings, ranges, or altitudes	91
K400 Determine geometries	91
K396 Control aircraft at orbit points, such as strategic orbit points, combat air patrol points, or initial points	91
K392 Coordinate handovers with other agencies	91
J337 Conduct radio checks with ground or airborne working agencies	91
G246 Interpret SDC displays	90
G261 Perform air-to-air refueling duties	90
J339 Coordinate aircraft recoveries with other agencies	90
G222 Conduct SDC checkouts	90
F172 Don or doff aircrew protective clothing	90
K441 Transmit tactical reference point information to aircraft	88
F189 Participate in general or specialized mission briefings, such as intelligence briefings	88
K437 Transmit changes of mission or new mission information to aircraft	88